

6X Curriculum Outline

I. Fractions

- Comparing
- Multiplying
- Dividing
- Fractions and Decimals

II. Operations

- Order of Operations
- Evaluating Expressions
- Powers and Exponents
- Number Properties

III. Proportions and Percents

- Rates and Ratios
- Writing and Solving Proportions
- Fractions, Decimals, Percents
- Solving Percent Problems

IV. Geometry

- Coordinate Plane
- Applying Geometric Formulas
- Area, Circumference, Volume

V. Statistics and Probability

- Statistical Graphs
- Mean, Median, Mode
- Independent/Dependent Events

VI. Integers

- Operations with Integers

VII. Solving Equations

- One- and Two-Step Equations
- Writing Expressions and Equations
- Multi-Step Equations
- Equations with Variable on Both Sides

VIII. Rational and Irrational Numbers

- Square Roots
- Pythagorean Theorem

- IX. Factors and Exponents
 - Prime Factorization
 - Greatest Common Factor
 - Least Common Multiple
 - Rules of Exponents
 - Scientific Notation

- X. Measurement
 - Metric Measurement
 - Customary Measurement.

Both the math 6 and math 6X curriculums begin with the same topics. The math 6X curriculum allows less review time for topics previously introduced to students in fifth grade. The 6X curriculum as outlined above differs from the regular 6th grade curriculum in that Fractions, Operations, Proportions and Percents, Geometry, Statistics, and Integers are taught in greater depth with an emphasis on the algebraic nature of these topics. The 6X curriculum also includes Probability, Solving Equations, Rational and Irrational Numbers, Rules of Exponents, and Scientific Notation, which are typically taught in seventh-grade. These topics are not part of the regular 6th grade curriculum. As far as Measurement is concerned, the students must now learn how to convert measurements within a system (metric or customary).

The 6X curriculum is essentially the same as the full year of regular 6th grade curriculum plus the first half year of 7th grade. The 6X curriculum builds a solid foundation for 7X in which students will learn the second half of the 7th-grade curriculum plus the regular 8th grade curriculum. The combined 6X and 7X curricula prepare students for Integrated Algebra, which would be taught in 8th grade, and culminates in the Integrated Algebra Regents exam.